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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,369	11/03/2003	Jose Merino Lopez	033818-020	1156

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EXAMINER	
MAKI, STEVEN D	
ART UNIT	**PAPER NUMBER**
1733	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/698,369	LOPEZ ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1) The drawing correction filed 3-20-06 has been approved by the examiner. However, only one occurrence of "55" was changed to --57--. The drawings are therefore objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "55" has been used to designate both elements in figure 11 and holes in figure 4. It appears that the remaining "55" in figure 11 filed 3-20-06 should be --57--.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held

in abeyance.

2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3) Claims 18-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 18, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "the at least one recess arranged such that during tire travel when the tread is flattened against a road surface and said radially outermost portion of said at least one anti-connection element opens on to the running surface after tread wear to expose the filler material, the rubber of said tread received in said recess is situated radially outwardly of, and in radially overlying relationship to, a portion of said filler material at a location radially inwardly of said radially outermost portion of said at least one anti-connection element for resisting radial forces tending to eject said filler material from said tread" (emphasis added). The original disclosure supports connecting the filler to the rubber of the tread. See discussion of bridge in the original disclosure. However, the original disclosure fails to support situating rubber in the recess radially outwardly of, and in radially overlying relationship to, a portion of said filler material *instead of* allowing tread rubber to pass through the recess to form a bridge connecting the tread rubber to the filler rubber. For example, the rubber in the recesses of figure 2, figure 3 and figure 6 is "radially outwardly of, and in radially overlying relationship to" the anti-connection element *instead of* the filler 6. Another example, the rubber in the recesses in figure 7 and figure 8 is "radially outwardly of, and in radially overlying relationship to" the tread rubber 3

instead of the filler rubber 6. Since the slot in figure 5 is helical, it is not seen how the figure 5 embodiment supports the new language of "radially outwardly of, and in radially overlying relationship to". Also, it is not seen where the original disclosure discusses "flattening".

In claim 25, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the space containing the filler material being "completely encompassed" by such wall. None of the disclosed anti-connection elements "completely encompass" the filler. In figure 4, the orifices 55 prevent the wall from "completely encompassing" the filler.

In claim 26, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the branches being arranged "generally parallel to an equatorial plane of the tire. Where is the support for "generally parallel" (in contrast to "substantially parallel") to an equatorial plane of the tire?

In claim 36, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "applying a second tread of non-

vulcanized rubber mix over the first tread to form the at least one bridge". The original disclosure fails to support using the second tread material to form the bridges.

4) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5) Claims 18-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 18-37, it is unclear if a tread per se or a tire having a tread is being claimed. The description of "tread on a tire" (emphasis added) in the preamble of claim 18 indicates that a tire having a tread is being claimed whereas dependent claim 19 ("the tread according to claim 18 wherein ..." indicates that a tread per se is being claimed. In other words, it is unclear how "on a tire" affects the scope of claims 18-37. A tread per se is not required to be "on" a tire. However, the description of "tread on a tire" appears to require the tread to be on a tire.

In claim 22, it is unclear what additional limitation is being claimed. Claim 18 recites "volume of filler material occupying said space". Claim 22 recites "a space filled with solid filler". Is the same filler being described?

Claim 25 is indefinite because the requirement of "at least one recess" and "completely encompassed" is confusing.

In claim 32, there is no antecedent basis for "the rubber filler material".

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7) **Claims 18-26, 28 and 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Labareyre et al (WO 98/35842) in view of Japan 516 (JP 2001-187516), Lagnier et al (WO 98/54009) or Schrank (US 2,246,479).**

With respect to De Labareyre et al, US 6,484,772 is an English language equivalent to WO 98/35842, which is available under 102(b).

With respect to Japan 516, Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

With respect to Lagnier et al, US 6,408,910 is an English equivalent to WO 98/54009, which is available under 102(b).

De Labareyre et al discloses a tread for a tire comprising incisions in relief elements separated by circumferentially extending grooves wherein the walls of the incisions 14, 15 (sipes) are connected by rubber connecting elements 141, 151 (bridges formed from rubber of the tread). See figure 4. The rubber bridges for each incision are formed using an insert (anti-connection element) having orifices. The incisions having the rubber connecting elements tread can be made using inserts (anti-rubber-on-rubber connection elements) such as sheets of paper having orifices ("perforated paper sheets") wherein the orifices may have a size of 2 mm by 5 mm. The connection surface defined by the connecting elements is at least 10% of the surface of the wall. The incisions have a width of 0.1 mm to 2 mm. The insert may be made of a material

which can be eliminated after vulcanization and before travel. The insert may for example be an alloy insert which is melted. The tire may have a size such as 215/75R17.5 (pneumatic tire having a radial carcass and a crown reinforcement). In figure 9A, the tread comprises four ribs separated by three circumferential grooves wherein transverse incisions 21 and circumferential incisions 20 are located in the ribs. The incisions can be "hidden incisions" (incisions located below the tread surface). See figure 8. De Labareyre et al does not recite using at least one insert (anti-rubber-on rubber connection element) forming a space which delimits a volume of filler material occupying the space such that removal of the insert forms an incision delimiting a volume of rubber.

As to claim 18, it would have been obvious to one of ordinary skill in the art to configure De Labareyre et al's inserts (anti-rubber-on-rubber connection elements) such that removal of the inserts (anti-rubber-on-rubber connection elements) forms (U-shaped) hidden incisions delimiting a volume of rubber (filler material) since (1) De Labareyre et al teaches using inserts to form incisions wherein the insert has a shape corresponding to the desired shape of the incision, (2) De Labareyre et al teaches that the incisions formed using the inserts may be hidden incisions (incisions spaced below the tread surface) and (3) Japan 516, Lagnier et al or Schrank suggest forming incisions wherein (a) Japan 516 suggests using hidden grooves (hidden incisions) delimiting a volume of rubber (figures 1, 2) to maintain grip of the tire on wet roads by forming new grooves after tread wear, (b) Lagnier et al teaches using hidden incisions delimiting a volume of rubber (figure 6) so that with wear the tire tread retains good adhesion

performance by an increase in the number of incisions and (c) Schrank suggests forming slits (incisions) in a tire tread such that the lower portion of the slit delimits a volume of tread rubber (figures 4, 5) so that after wear, new grooves 16 can be formed to provide additional anti-skid edges.

With respect to h1 < h, note De Labareyre et al's teaching to space the outermost portion of the insert / incision from the tread surface (figure 8) so that after tread wear the hidden incisions appear; one of ordinary skill in the art readily understanding that the grooves have a depth greater than the outermost portion of the hidden insert / incision so that after wear, the tread comprises both incisions and grooves. The claimed at least one recess reads on the orifice in the insert. In other words, the claimed rubber which is received in the at least one recess reads on the rubber connecting element (rubber bridge).

The claimed rubber of the tread received in the recess as set forth last eight lines of claim 18 reads on and fails to require structure different from the rubber connecting element of De Labareyre et al. In other words, the last eight lines of claim 8 are considered to describe a "rubber bridge" (rubber received in the at least one recess), which connects rubber (rubber of said tread) on one side of a wall of the "insert" (anti-rubber-on-rubber connection element) to rubber (filler) on the other side of the wall of the insert. De Labareyre et al teaches this subject matter. Since the rubber bridge of De Labareyre et al connects rubber on both sides of the insert, ejection of the rubber on both sides of the insert is resisted.

Hence, De Labareyre et al teaches forming hidden incisions having the walls thereof connected by rubber bridges using inserts with holes (anti-rubber-on-rubber connection elements) and thereby substantially discloses the claimed invention. **The only difference between the claimed invention and the De Labareyre et al is the shape of the insert (anti-rubber-on-rubber connection element).** The secondary art provides ample motivation to shape the incisions formed by De Labareyre et al such that the insert, which has the *same shape (e.g. U-shape)* as the incision, delimits a volume of rubber (filler material) as set forth in claim 18 with the expected benefits including maintaining grip of the tire on wet roads by forming new grooves after tread wear (Japan 516), retaining good adhesion performance after tread wear by an increase in the number of incisions (Lagnier et al) and forming new grooves after wear to provide additional anti-skid edges (Schrank). Stated differently, De Labareyre et al teaches using paper sheets to form incisions wherein the walls of the incision are connected by bridges. With respect to filler, the secondary art to Japan 516, Lagnier et al or Schrank suggest a U-shaped incision having rubber ("filler") between the legs of the U-shaped incision.

As to claim 19, De Labareyre et al teaches completely surrounding the insert for forming a hidden incision. When the insert has the shape shown in figure 3 of Japan 516, rubber extends through the holes of the insert to join the tread rubber and the rubber in the volume delimited by the insert such that a bridge extends completely across the filler.

As to claim 20, De Labareyre et al teaches that the incisions formed by the inserts have a width of 01. mm to 2 mm.

As to claims 21-24, note De Labareyre et al's teachings regarding the specifics of the removable insert (e.g. paper sheet, meltable alloy).

As to claim 25, it is acknowledged that the orifices in De Labareyre et al's insert, like the at least one recess in applicant's anti-connection element prevents the space being completely encompassed. However, note above 112 first paragraph rejection.

As to claim 26, De Labareyre et al suggests circumferentially oriented incisions and Japan 516 / Schrank suggest an incision having a radially outward opening formed by two branches.

As to claim 28, Japan 516 suggests a varying contour in figure 4.

As to claim 30, the claimed spacing of at most 6 mm for the radially inner ends would have been obvious and could have been determined without undue experimentation in view of Japan 516's teaching to use an incision to form a new groove, Lagnier's teaching to space branches of the incision or Schrank's teaching to use an incision to form a new groove.

As to claim 31 (incision), note De Labareyre et al's teaching to remove / eliminate the insert after vulcanization and before travel.

As to claim 32, note the bridge area suggested by De Labareyre et al.

As to claim 33, De Labareyre et al suggests using circumferential and transverse incisions each of which is formed using the insert.

As to claims 34 and 35, De Labareyre et al's insert (paper or alloy) has a different color than the tread rubber. Claims 34 and 35 (tire claims) fail to require use of the anti-connection element as a wear indicator.

8) **Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Labareyre et al in view of Japan 516, Lagnier et al or Schrank as applied above and further in view of Auxerre et al (US 6,003,576).**

As to claim 27, it would have been obvious to one or ordinary skill in the art to provide De Labareyre et al's tire with a wear indicator in the bottom of each circumferential groove such that h-h1 is at least equal to the thickness of the wear indicator since (1) De Labareyre et al shows the incisions (and therefore the inserts used to form the incisions) as having a depth corresponding to that the grooves and (2) Auxerre et al teaches that it well known in the tire art to locate a small platform of rubber in a circumferential groove to indicate the minimum depth of the tread that legally must remain on the tread in use of the tire.

9) **Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Labareyre et al in view of Japan 516, Lagnier et al or Schrank as applied above and further in view of Japan 115 (JP 2001-39115).**

As to claim 36, it would have been obvious to one or ordinary skill in the art to assembly the hidden U-shaped insert in the tread using the claimed inserting and applying steps since Japan 115 teaches locating a hidden insert in a tread by inserting the insert in a groove of a non-vulcanized tread and applying a layer of unvulcanized rubber thereover. With respect to inserting filler material, note that Japan 516, Lagnier

et al and Schrank suggest "filling" the space delimited by the U-shaped incision with rubber.

Allowable Subject Matter

10) **Claim 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.**

Japan 430 (figure 2, JP 11-78430) fails to motivate one of ordinary skill in the art to further modify De Labareyre et al such that in addition to the subject matter of claims 18, 26 and 28, "the contours are representative of a periodic function" as in claim 29.

Claim 37 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

There is no motivation or suggestion to modify De Labareyre et all so as to perform a process of regrooving in which a small number of *bridges* are cut out after visualization and the rest of the *bridges* of vulcanized rubber are broken by traction.

Remarks

11) The prior art rejections using Japan 115, Pederson, Flautt, Japan 406 and Japan 905 have been withdrawn in view of new claim 18.

Applicant's arguments with respect to claims 18-37 have been considered but are moot in view of the new ground(s) of rejection. The rejection using De Labareyre et al has been modified in view of new claim 18.

Applicant's arguments filed 3-30-06 have been fully considered but they are not persuasive.

Applicant comments (1) the anti-connection element can be cardboard or even an incision (gap) and (2) bridges are defined. See pages 13-14 of response filed 3-30-06. Examiner adds that De Labareyre et al teaches using paper sheets to form incisions wherein the walls of the incision are connected by bridges. With respect to filler, the secondary art to Japan 516, Lagnier et al or Schrank suggest a U-shaped incision having rubber ("filler") between the legs of the U-shaped incision.

12) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
June 11, 2006

STEVEN D. MAKI 6-11-06
PRIMARY EXAMINER

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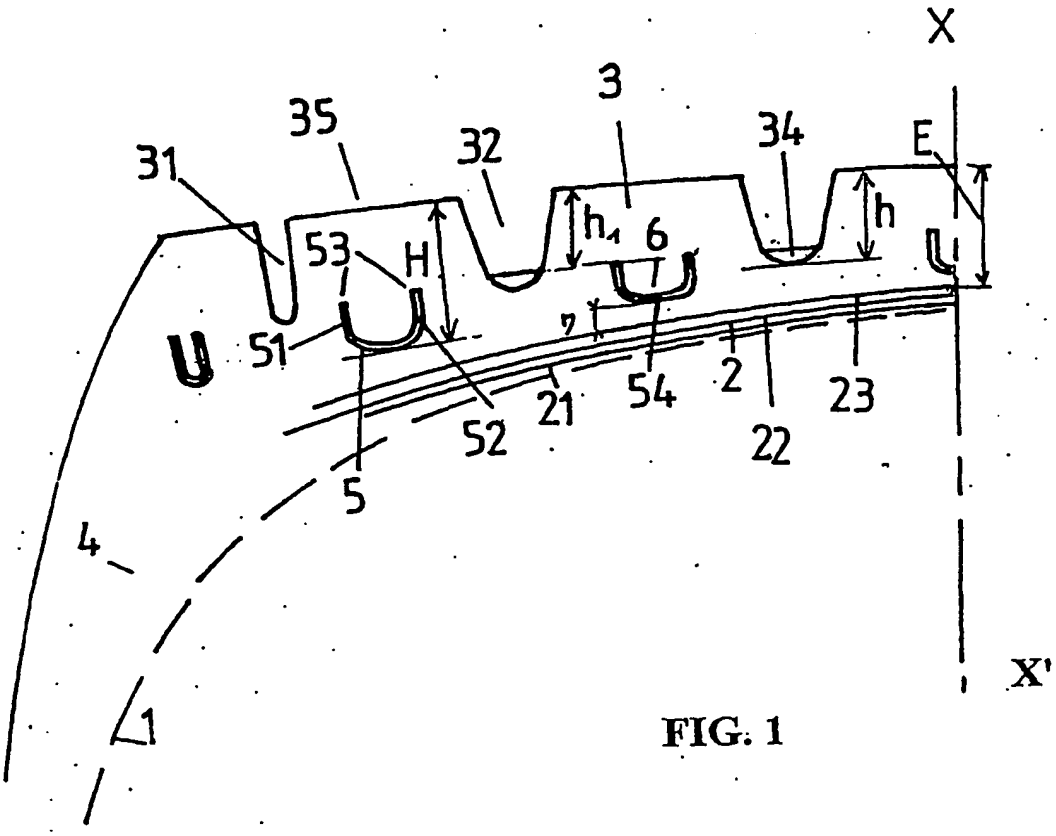

FIG. 1

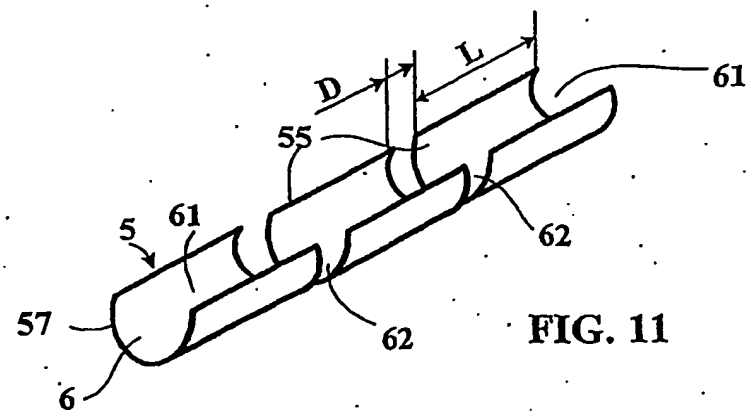

FIG. 11

approved
JM
6-10-06